## **AMENDMENT TO THE CLAIMS**

Please replace all prior versions and listings of claims with the amended claims as follows:

1. (Previously presented) A compound of formula I:

$$\begin{array}{c}
 & \text{Ht} \\
 & \text{H} \\
 & \text{H}$$

or a pharmaceutically acceptable salt thereof, wherein:

Ht is pyrrol-3-yl having R<sup>3</sup> and QR<sup>4</sup> substituents;

A-B is N-O or O-N;

R<sup>1</sup> is hydrogen or -NHR;

T is a valence bond;

Q is -C(O) or  $-SO_2$ -;

each R is independently selected from hydrogen or an optionally substituted aliphatic group having one to six carbons;

R<sup>2</sup> is an aryl group substituted with up to three R<sup>8</sup> substituents;

R<sup>3</sup> is hydrogen;

 $R^4$  is  $-R^6$  or  $-NHR^6$ ;

each R<sup>6</sup> is independently selected from -(CH<sub>2</sub>)<sub>y</sub>R<sup>7</sup>;

y is 0-6;

each R<sup>7</sup> is an optionally substituted group independently selected from aryl, heteroaryl, or heterocyclyl;

each  $R^8$  is independently selected from halogen, -R', or -OR'; wherein each R' is independently selected from hydrogen or an optionally substituted  $C_{1-12}$  aliphatic.

2. (Previously presented) The compound according to claim 1 having the formula:

$$\begin{array}{c}
 & \text{Ht} \\
 & \text{N} \\
 & \text{T-R}^2
\end{array}$$

II

or a pharmaceutically acceptable salt thereof.

3. (Previously presented) The compound according to claim 2 having the formula:

$$\begin{array}{c}
H \\
N \\
Q-R^4
\end{array}$$

$$\begin{array}{c}
R^3
\end{array}$$

$$\begin{array}{c}
T-R^2
\end{array}$$

II-A

or a pharmaceutically acceptable salt thereof.

4. (Previously presented) The compound according to claim 3, wherein said compound has one or more features selected from the group consisting of:

- (a) Q is -CO-;
- (b) R<sup>1</sup> is hydrogen; and
- (c) R<sup>7</sup> is an optionally substituted heterocyclyl group.

5. (Previously presented) The compound according to claim 4, wherein:

- (a) Q is -CO-;
- (b) R<sup>1</sup> is hydrogen; and
- (c)  $\mathbb{R}^7$  is an optionally substituted heterocyclyl group.

6. (Previously presented) The compound according to claim 1 having the formula:

$$\bigcap_{R^1}^{N} \bigoplus_{T-R^2}^{Ht}$$

Ш

or a pharmaceutically acceptable salt thereof.

7. (Previously presented) The compound according to claim 6 having the formula:

$$\begin{array}{c}
H \\
Q - R^4 \\
R^3
\end{array}$$

$$\begin{array}{c}
T - R^2
\end{array}$$

III-A

or a pharmaceutically acceptable salt thereof.

- 8. (Previously presented) The compound according to claim 7, wherein said compound has one or more features selected from the group consisting of:
  - (a) Q is -CO-;
  - (b) R1 is hydrogen; and
  - (c) R<sup>7</sup> is an optionally substituted heterocyclyl group.
  - 9. (Previously presented) The compound according to claim 8, wherein:
  - (a) Q is -CO-;
  - (b) R<sup>1</sup> is hydrogen; and
  - (c) R<sup>7</sup> is an optionally substituted heterocyclyl group.

10. (Previously presented) The compound according to claim 1 having the formula:

or a pharmaceutically acceptable salt thereof.

11. (Previously presented) The compound according to claim 10 having the formula:

$$\begin{array}{c}
H \\
N \\
Q - R^4 \\
R^3 \\
T - R^2
\end{array}$$

IV-A

or a pharmaceutically acceptable salt thereof.

- 12. (Previously presented) The compound according to claim 11, wherein said compound has one or more features selected from the group consisting of:
  - (a) Q is -CO-; and
  - (b)  $\boldsymbol{R}^7$  is an optionally substituted heterocyclyl group.
  - 13. (Previously presented) The compound according to claim 12, wherein:
  - (a) Q is -CO-; and
  - (b)  $R^7$  is an optionally substituted heterocyclyl group.
  - 14-17. (Canceled)
- 18. (Previously presented) The compound according to claim 1, wherein said compound is selected from the following compounds having formulae **II-A** or and **IV-A**:

$$\begin{array}{c}
H \\
N \\
N \\
T-R^2
\end{array}$$
II-A

## Compounds of Formula II-A

No.	T-R <sup>2</sup>	Q-R <sup>4</sup>	
IIA-2	2-chlorophenyl	CONHCH <sub>2</sub> (Ph)	
IIA-3	2-chlorophenyl	CO(morpholin-4-yl)	
IIA-4	4-methoxyphenyl	CONHCH <sub>2</sub> (pyridin-4-yl)	
IIA-5	3-fluorophenyl	CONHCH <sub>2</sub> (pyridin-4-yl)	
IIA-6	3-methoxyphenyl	CONHCH <sub>2</sub> (pyridin-4-yl)	
IIA-7	2,5-dimethoxyphenyl	CONHCH <sub>2</sub> (pyridin-4-yl)	
IIA-8	3,4-difluorophenyl	CONHCH <sub>2</sub> (pyridin-4-yl)	
IIA-9	2,3-difluorophenyl	CONHCH <sub>2</sub> (pyridin-4-yl)	
IIA-10	2,5-difluorophenyl	CONHCH <sub>2</sub> (pyridin-4-yl)	
<b>IIA-</b> 11	4-methoxyphenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	
IIA-12	3-fluorophenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	
IIA-13	3-methoxyphenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	
IIA-14	2,5-dimethoxyphenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	
IIA-15	3,4-difluorophenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	
IIA-16	2,3-difluorophenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	
IIA-17	2,5-difluorophenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	
IIA-18	4-methoxyphenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)	
IIA-19	3-fluorophenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)	
IIA-20	3-methoxyphenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)	
IIA-21	2,5-dimethoxyphenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)	
IIA-22	3,4-difluorophenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)	
IIA-23	2,3-difluorophenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)	
IIA-24	2,5-difluorophenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)	
IIA-25	4-fluorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	
IIA-26	4-methoxyphenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	
IIA-27	3-fluorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	
IIA-28	3-methoxyphenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	
IIA-29	2,5-dimethoxyphenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	

No.	T-R <sup>2</sup>	Q-R <sup>4</sup>	
IIA-30	3,4-difluorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	
IIA-31	2,3-difluorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	
IIA-32	2,5-difluorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	
IIA-33	4-fluorophenyl	CO(morpholin-4-yl)	
IIA-34	4-methoxyphenyl	CO(morpholin-4-yl)	
IIA-35	3-fluorophenyl	CO(morpholin-4-yl)	
IIA-36	3-methoxyphenyl	CO(morpholin-4-yl)	
IIA-37	2,5-dimethoxyphenyl	CO(morpholin-4-yl)	
IIA-38	2,3-difluorophenyl	CO(morpholin-4-yl)	
IIA-39	2,5-difluorophenyl	CO(morpholin-4-yl)	
IIA-40	4-fluorophenyl	CO(4-Me-piperazin-1-yl)	
IIA-41	4-methoxyphenyl	CO(4-Me-piperazin-1-yl)	
IIA-42	3-fluorophenyl	CO(4-Me-piperazin-1-yl)	
IIA-43	3-methoxyphenyl	CO(4-Me-piperazin-1-yl)	
IIA-44	2,5-dimethoxyphenyl	CO(4-Me-piperazin-1-yl)	
IIA-45	2,3-difluorophenyl	CO(4-Me-piperazin-1-yl)	
IIA-46	2,5-difluorophenyl	CO(4-Me-piperazin-1-yl)	
IIA-47	3-chlorophenyl	CONHCH <sub>2</sub> (pyridin-4-yl)	
IIA-48	3-chlorophenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	
IIA-49	3-chlorophenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)	
IIA-50	3-chlorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	
IIA-51	3-chlorophenyl	CO(4-Me-piperazin-1-yl)	
IIA-52	4-chlorophenyl	CONHCH <sub>2</sub> (pyridin-4-yl)	
IIA-53	4-chlorophenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	
IIA-54	4-chlorophenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)	
IIA-55	4-chlorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	
IIA-56	4-chlorophenyl	CO(morpholin-4-yl)	
IIA-57	4-chlorophenyl	CO(4-Me-piperazin-1-yl)	
IIA-58	3,4-dichlorophenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	
IIA-59	3,4-dichlorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)	
IIA-60	3,4-dichlorophenyl	CO(morpholin-4-yl)	
IIA-61	3,4-dichlorophenyl	CO(4-Me-piperazin-1-yl)	
IIA-62	2-F-3-chlorophenyl	CONHCH <sub>2</sub> (pyridin-4-yl)	
IIA-63	2-F-3-chlorophenyl	CONHCH <sub>2</sub> (pyridin-3-yl)	

No.	T-R <sup>2</sup>	Q-R <sup>4</sup>		
IIA-64	2-F-3-chlorophenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)		
IIA-65	2-F-3-chlorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)		
IIA-66	2-F-3-chlorophenyl	CO(morpholin-4-yl)		
IIA-67	2-F-3-chlorophenyl	CO(4-Me-piperazin-1-yl)		
IIA-68	3-Cl-4-fluorophenyl	CONHCH <sub>2</sub> (pyridin-4-yl)		
IIA-69	3-Cl-4-fluorophenyl	CONHCH <sub>2</sub> (pyridin-3-yl)		
IIA-70	3-Cl-4-fluorophenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)		
IIA-71	3-Cl-4-fluorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)		
IIA-72	3-Cl-4-fluorophenyl	CO(morpholin-4-yl)		
IIA-73	3-Cl-4-fluorophenyl	CO(4-Me-piperazin-1-yl)		
IIA-74	3,4-dimethoxyphenyl	CONHCH₂(pyridin-4-yl)		
IIA-75	3,4-dimethoxyphenyl	CONHCH <sub>2</sub> (pyridin-3-yl)		
IIA-76	3,4-dimethoxyphenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)		
IIA-77	3,4-dimethoxyphenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)		
IIA-78	3,4-dimethoxyphenyl	CO(morpholin-4-yl)		
IIA-79	3,4-dimethoxyphenyl	CO(4-Me-piperazin-1-yl)		
IIA-80	4-benzo[1,3]dioxol-5-yl	CONHCH <sub>2</sub> (pyridin-4-yl)		
IIA-81	4-benzo[1,3]dioxol-5-yl	CONHCH <sub>2</sub> (pyridin-3-yl)		
IIA-82	4-benzo[1,3]dioxol-5-yl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)		
IIA-83	4-benzo[1,3]dioxol-5-yl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)		
IIA-84	4-benzo[1,3]dioxol-5-yl	CO(morpholin-4-yl)		
IIA-85	4-benzo[1,3]dioxol-5-yl	CO(4-Me-piperazin-1-yl)		
IIA-86	3,5-dichlorophenyl	CONHCH <sub>2</sub> (pyridin-4-yl)		
IIA-87	3,5-dichlorophenyl	CONHCH <sub>2</sub> (pyridin-3-yl)		
IIA-88	3,5-dichlorophenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)		
IIA-89	3,5-dichlorophenyl	CONHCH <sub>2</sub> (1-Et-pyrrolidin-2-yl)		
IIA-90	3,5-dichlorophenyl	CO(morpholin-4-yl)		
IIA-91	3,5-dichlorophenyl	CO(4-Me-piperazin-1-yl)		
IIA-93	3-chlorophenyl	CO(morpholin-4-yl)		
IIA-106	phenyl	Z N N F		

No.	$T-R^2$ Q- $R^4$		
<b>IIA</b> -107	phenyl	3, N N	
IIA-108	3,4-dimethoxyphenyl	2 N N N F F	
<b>IIA</b> -109	3-chlorophenyl		
<b>IIA</b> -110	3-chlorophenyl	ş <sup>Ů</sup> N	
IIA-111	3-methylphenyl	ş <sup>Ů</sup> N	
IIA-114	2-fluoro-3-chlorophenyl	Ş. N.	
<b>IIA</b> -115	3-chlorophenyl	\$ N \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
IIA-116	3,4-dimethoxyphenyl	ş Î <sub>N</sub>	
IIA-117	3,4-dimethoxyphenyl	Ş. N → OH	
IIA-119	3-methylphenyl	₹ <sup>N</sup> NOH	

No.	T-R <sup>2</sup>	Q-R <sup>4</sup>	
<b>IIA-</b> 120	2-fluoro-3-chlorophenyl	3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	
<b>ПА</b> -121	2-fluoro-3-chlorophenyl	Ş. N.	
ПА-122	2-fluoro-3-chlorophenyl	3- N	
<b>ПА</b> -123	3-chlorophenyl	32 N N N	
ПА-124	3,4-dimethoxyphenyl	2 N N N N N N N N N N N N N N N N N N N	
<b>IIA</b> -125	2-fluoro-3-chlorophenyl	₹ N OH	
<b>ПА</b> -126	2-fluoro-3-chlorophenyl	₹ <sup>1</sup> N N N	
<b>IIA</b> -130	phenyl		
IIA-131	phenyl	Z N N	
ПА-132	phenyl	3 <sup>N</sup> N	

No.	$T-R^2$ Q- $R^4$		
IIA-133	phenyl	2 <sup>1</sup> N	
ПА-134	phenyl	Zell N N N F	
IIA-135	3,4-dimethoxyphenyl	Ş. NH	
IIA-136	3,4-dimethoxyphenyl	², <sup>⊥</sup> N	
IIA-137	3,4-dimethoxyphenyl	3 N N	
IIA-138	3-methylphenyl	3√ N CO	
IIA-139	3-methylphenyl	₹ <sup>N</sup> H	
IIA-140	3-methylphenyl	3 <sup>N</sup> N	
IIA-141	2-fluoro-3-chlorophenyl	ş <sup>l</sup> N⊃	
IIA-142	3-chlorophenyl	Z N N	
ПА-143	3-chlorophenyl	Ş. N. N. F. F. N.	

No.	T-R <sup>2</sup>	Q-R <sup>4</sup>	
IIA-144	3-chlorophenyl	ş <sup>⊥</sup> N	
IIA-145	3-chlorophenyl	₹ <sup>N</sup> N	
IIA-146	3-chlorophenyl	3 <sup>1</sup> N N	
IIA-148	phenyl	₹ N N N N N N N N N N N N N N N N N N N	
IIA-150	3,4-dimethoxyphenyl	₹ <sup>N</sup> N	
<b>IIA</b> -151	3-methylphenyl	3-1 N N	
IIA-152	3-methylphenyl	Zy N N CH₃	
IIA-153	phenyl	Ş√N OH	
ПА-154	phenyl	₹ N N CH3	
IIA-155	phenyl	3-1 N	

No.	T-R <sup>2</sup> Q-R <sup>4</sup>		
IIA-156	3,4-dimethoxyphenyl	₹ N N N OMe	
IIA-157	3,4-dimethoxyphenyl	₹ N CH3	
IIA-159	3-methylphenyl	2, N OH	
IIA-160	3-chlorophenyl	2 <sub>P</sub> N OH	
IIA-161	phenyl	POH NO OH	
IIA-162	3-chlorophenyl	Ş. N. OH	
IIA-163	3,4-dimethoxyphenyl	Sylv CH³	
IIA-164	3-chlorophenyl	5 N CH3	
IIA-165	phenyl	Ş. N OH	
IIA-167	phenyl	₹ <sup>N</sup> N CH <sub>3</sub>	

No.	T-R <sup>2</sup>	Q-R <sup>4</sup>		
IIA-168	3,4-dimethoxyphenyl	2 NOH		
IIA-169	3,4-dimethoxyphenyl	3- N		
<b>HA</b> -170	3,4-dimethoxyphenyl	₹ <sup>1</sup> N		
IIA-171	3-methylphenyl	ş, N OH		
IIA-172	3-methylphenyl	₹ <sup>N</sup> N NOMe		
IIA-173	3-methylphenyl	2√N N NOH		
IIA-174	3-methylphenyl	3 N N N N N N N N N N N N N N N N N N N		
<b>HA</b> -175	3-methylphenyl	Ž <sup>N</sup> N → F		
IIA-176	3-methylphenyl	₹ N N CH3		
IIA-177	2-fluoro-3-chlorophenyl	Ze N CH3		

No.	T-R <sup>2</sup>	Q-R <sup>4</sup>		
IIA-179	2-fluoro_[[,]]3-chlorophenyl	<sup>2</sup> √N CH₃		
IIA-180	2-fluoro_[[,]]3-chlorophenyl			
IIA-182	3-chlorophenyl	sylv OH		
IIA-183	3-chlorophenyl	₹ N N OMe		
IIA-184	3-chlorophenyl	ş√N N OH		
IIA-187	3-methylphenyl	₹ N OH		
<b>ПА</b> -190	2-fluoro-3-chlorophenyl	3 N N		
IIA-191	phenyl	ş,		
IIA-192	3,4-dimethoxyphenyl	ş. NOH		
IIA-193	3-methylphenyl	3- N OH		

No.	T-R <sup>2</sup>	Q-R <sup>4</sup>
<b>ПА</b> -194	phenyl	

$$\begin{array}{c}
H \\
Q - R^4 \\
R^3 \\
T - R^2
\end{array}$$

IV-A

## Compounds of Formula IV-A

No.	R	T-R <sup>2</sup>	Q-R <sup>4</sup>
IVA-4	Н	phenyl	CO(pyrrolidin-1-yl)
IVA-5	Me	phenyl	CONHCH <sub>2</sub> (Ph)
IVA-16	Me	3-Cl-phenyl	CONHCH <sub>2</sub> (pyridin-4-yl)
IVA-17	Н	5-Cl-phenyl	Ş. ↓ NH OH
IVA-18	Н	5-F-phenyl	CONHCH <sub>2</sub> (tetrahydrofuran-2-yl)
IVA-19	Me	5,6-F <sub>2</sub> -phenyl	CO(4-Me-piperidin-1-yl)
IVA-20	Н	4-Cl-phenyl	CONHCH <sub>2</sub> (pyrid-4-yl)
IVA-21	Н	4,5-(OMe) <sub>2</sub> -phenyl	Z HN N
IVA-22	Me	4,5-Cl <sub>2</sub> -phenyl	OH3C CH3 N CH3

- 19. (Previously presented) A composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier.
- 20. (Original) The composition according to claim 19 wherein said compound is formulated in a pharmaceutically acceptable manner for administration to a patient.

- 21. (Previously presented) The composition according to claim 19 further comprising an additional therapeutic agent selected from a chemotherapeutic agent, an anti-inflammatory agent, an immunomodulatory or immunosuppressive agent, a neurotrophic factor, and agent for treating liver disease, an agent for treating a blood disorder, an agent for treating diabetes, or an agent for treating an immunodeficiency disorder.
- 22. (Previously presented) The composition according to claim 20 further comprising an additional therapeutic agent selected from a chemotherapeutic agent, an anti-inflammatory agent, an immunomodulatory or immunosuppressive agent, a neurotrophic factor, and agent for treating liver disease, an agent for treating a blood disorder, an agent for treating diabetes, or an agent for treating an immunodeficiency disorder.
- 23. (Previously presented) A method of inhibiting ERK or AKT activity in a biological sample selected from cell cultures or extracts thereof, biopsied material obtained from a mammal or extracts thereof, saliva, urine, feces, semen, tears, or extracts thereof, comprising the step of contacting said biological sample *in vitro* with a compound according to claim 1 or a composition according to claim 19.

24-43. (Canceled)